

Virginia Western Community College

RAD 215

Correlated Radiographic Theory

Prerequisites

Successful completion of RAD 231

VCCS Course Description

Presents intensive correlation of all major radiologic technology subject areas. Studies interrelationships of biology, physics, principles of exposure, radiologic procedures, patient care, and radiation protection. Lecture 1-2 hours per week.

1-2 credits

VWCC Discipline Specific Course Description

Presents intensive correlation of all major radiologic technology subject areas. Studies interrelationships of biology, physics, principles of exposure, radiologic procedures, patient care, and radiation protection

Semester Credits: 2

Lecture Hours: 2

Required Materials

- ASRT Student membership
- Textbook
 - *Mosby's Comprehensive Review of Radiography*. 8th Ed, William A. Callaway, ISBN: 9780323694889
 - *Lange Q&A Radiography Examination*, 12th ed., D.A. Saia, ISBN: 9781260460445

VWCC AND DISCIPLINE SPECIFIC OUTCOMES

At the completion of this course, the student should be able to:

- Satisfactorily complete all review/correlation course work with a minimum of 75% competency.
- Be academically prepared to sit for and pass the ARRT Examination in Radiologic Technology.

VWCC AND DISCIPLINE SPECIFIC TOPICAL DESCRIPTIONS

Preparation for Review

- Prioritizing Subjects & Scheduling Study Time
- Planning the Review Process
- Scheduling Your Study Time

- Study Habits
- ARRT Examination Procedures-Application Process
- Materials Needed for Examination
- Examination Results
- Test Taking Skills

Review of Patient Care & Education

- Basic Patient Care Terminology
- Communication with the Patient
- Medicolegal Aspects of Practice
- Patient Preparation
- Patient History
- Patient Transfer
- Infection Control
- Contrast Media
- Venipuncture
- Hazardous Materials

Review of Radiation Protection (Safety)

- Basic Radiation Protection Terminology
- Basic Principles of Radiation Protection
- Photon Tissue Interactions
- Units of Radiation Measurement
- Annual Dose Limits
- Review of the Cell
- Biologic Effects of Ionizing Radiation
- Patient Exposure & Protection
- Radiation Worker Exposure & Protection
- Monitoring Radiation Exposure

Review of Image Production & Evaluation

- Density
- Contrast
- Recorded Detail
- Distortion
- Radiographic Film
- Intensifying Screens
- Grids
- Technique Charts
- Automatic Exposure Controls
- Automatic Processing & Quality Assurance

Review of Equipment Operation & Quality Control

- Basic Physics Terminology
- Conditions Necessary for the Production of X-Rays
- Equipment Used In the Production of X-Rays

- X-Ray Production
- Dedicated Imaging Equipment
- Digital Imaging Units
- Quality Control of X-ray Producing Equipment

Review of Radiographic Procedures

- Basic Procedures & Positioning Terminology
- Basic Principles of Positioning & Procedures
- Topography
- Motion Control
- Exposure Modification
- Gonadal Shielding
- Body Habitus
- Pediatric Radiography: General Principles
- Trauma: General Principles
- Review of Anatomy Relevant to Radiography

Challenge Tests

Career Paths

- Career Planning Inventory
- Goal Setting
- Continuing Education Requirements
- Radiologic Specialties
- Academic Degrees

Writing a Professional Resume

- Purpose of a Resume
- Contents of a Resume
- Writing a Resume
- Cover Letter
- Appearance of the Resume and Cover Letter
- Job Application

Interviewing Techniques

- Purpose of an Interview
- Personal Appearance
- Preparing for the Interview
- Interview Process
- Interview Outcomes and Follow Up

Employment Expectations

- Entering the Health Care Workforce
- Task Inventory
- Organizational Structure and Professional Responsibility

[TITLE IX STATEMENT](#)

[ADA STATEMENT](#)